

MULTI-CONFIGURATIONAL SPORTS ORGANIZER

1 FIELD OF THE INVENTION

2 This invention relates to storage devices and more
3 particularly to a multi-configurational storage organizer
4 utilizing interchangeable baskets and equipment supports for
5 consumer preference storage of sporting equipment.

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7 BACKGROUND OF THE INVENTION

8 Storage of sporting equipment presents a special problem
9 to the average consumer. The problem is the multitude of
10 shapes that sporting equipment entails. For instance, ball
11 shaped items such as basketballs, volleyballs, baseballs,
12 tennis balls, and so forth must all be stored in a manner to
13 prevent them from rolling away. However, the average
14 consumer typically owns more than a single sized ball, making
15 a storage apparatus that is specifically designed to
16 accommodate a single sized sporting item inappropriate.

17 Storage of such sporting goods on a conventional flat
18 shelf also presents apparent problems. One problem is the
19 need to prevent the aforementioned ball shaped items from
20 rolling off the shelf. Even if shelf space is modified to
21 secure a ball shaped item, the accompanying odd shaped items
22 present additional problems. For instance, hockey sticks and
23 baseball bats take up an inordinate amount of shelf space.

1 Placing the items in a corner lends no form of organization
2 or protection for either the item or an individual who may
3 come in contact with a loose item. Improper storage of such
4 items also makes it difficult for cleaning, allowing
5 accumulation of spiders and dirt. Improperly stored items
6 may also lead to early degradation, and with the cost of
7 sporting equipment, proper storage is a necessity. All of
8 these problems are compounded in a home having more than one
9 child, for each child may have their own sporting equipment.

10 Sports organizers represented by the prior art
11 typically are constructed to incorporate at least one planar
12 wall structure to allow storage of a broad range of items.

13 For example, U.S. Pat. No. 5,203,462 teaches a sports
14 equipment rack having a ball holder constructed from a
15 tubular rod bent into U-shaped configurations providing
16 support for ball shaped items wherein a rod continuance leads
17 to an arcuate shaped leg providing a hook bracket for
18 placement of a baseball bat in a horizontal position.

19 U.S. Pat. No. 5,413,228 teaches a sports storage rack
20 having a slotted member for supporting a baseball bat and an
21 indented member providing for positioning of a baseball.

22 U.S. Pat. No. 4,936,467 teaches a sports equipment rack
23 which consists of two frame members spaced apart by
24 telescoping members. The rod members allow items to be

1 placed against the wall with hooks on the front of each frame
2 to allow storage of gloves and caps. Brackets bolted to the
3 side of the frame provide storage for baseball bats.

4 A disadvantage to this type of device is the use of the
5 wall as a partial support which results in soiling of the
6 wall. For instance, a basketball placed on the device is
7 likely to impart marks on the adjoining wall leading to an
8 unsightly arrangement. Should the basketball be wet, it may
9 not only soil the wall it may cause warpage of the wall.

10 In addition, many of these devices fail to provide a
11 means for holding small items, or non-conforming items which
12 may accompany a sporting activity, such as street hockey
13 which employs hockey sticks, in-line skates and a hockey
14 ball. Nondescript items are also difficult to store, such as
15 frisbees and paddle rackets.

16 Other prior art devices utilize portable enclosures for
17 storage of sports equipment. For example, U.S. Pat. No.
18 4,227,710 teaches a wheeled cart enclosure for carrying and
19 storing baseball equipment. The enclosure includes shelves
20 attached to a back panel with the shelves extending between
21 side panel members extending at right angles to the back
22 panel. A foldable stand extends away from the back panel to
23 support the cart in an upright position for use as a bat rack
24 and is folded to a storage position during movement of the

1 cart.

2 U.S. Pat. No. 4,344,660 teaches a wheeled enclosure
3 suitable for transporting equipment to be used by a baseball
4 team. The cabinet includes an enclosure which is defined
5 generally by a closed back, sides and bottom, openable front
6 storage doors and by a top or upper hinged flap. The main
7 compartment and front storage doors are further defined to
8 provide specific areas for storage of baseball bats,
9 catcher's equipment, baseballs, printed materials and
10 accessory equipment. The cabinet includes a pair of wheels,
11 a handle and hinged top and front doors to facilitate the
12 movement of the cabinet when closed and to permit access to
13 the stored materials.

14 This type of sports equipment organizer also has a
15 number of disadvantages. First, the planar walled enclosures
16 are generally heavy thereby reducing their portability.
17 Second, the solid rear panel and side walls only allow the
18 stored sporting goods to be accessed from the front area.
19 Third, the enclosures are not ventilated, thereby trapping
20 moisture inside and increasing the likelihood of bacteria and
21 mold growth inside the enclosure.

22 In addition, the prior art fails to provide a sports
23 equipment organizer that organizes a broad array of sports
24 equipment, and provides a means of removing a collection of

1 the stored equipment for transportation.

2 Thus, what is lacking in the art is a
3 multi-configurational sports organizer capable of supporting
4 sports equipment to encompass a wide range of sports,
5 including miscellaneous odd shaped sporting items. The
6 sports equipment organizer should be adapted for easy
7 individual storage personalization. The sports organizer
8 should allow access to the sporting goods from every
9 direction around its perimeter. The sports organizer should
10 also provide adequate ventilation to dry out sweaty or wet
11 sporting goods. The sports organizer should also include
12 portable storage/carrier bags to allow a collection of
13 sporting goods to be easily removed from the organizer and
14 transported.

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1 SUMMARY OF THE INVENTION

2 It is an objective of the invention to provide a multi-
3 configurational sports equipment organizer.

4 It is another objective of the invention to provide a
5 multi-configurational sports equipment organizer that is easy
6 to modify and readily adapts to consumer needs.

7 It is still another objective of the invention to
8 provide a sports equipment organizer which provides excellent
9 visibility of the stored sporting equipment.

10 It is a further objective of the invention to provide
11 a sports equipment organizer which provides access to the
12 sports equipment from all four sides.

13 It is still a further objective of the invention to
14 provide a sports equipment organizer that provides easy and
15 quick reconfiguration using modular sports equipment supports
16 that may be secured to the organizer without fasteners.

17 In accordance with the above objectives, a
18 multi-configurational sports equipment organizer is provided.
19 The sports equipment organizer comprises at least two
20 vertical side frames each having two spaced apart vertically
21 extending end posts and a plurality of transverse horizontal
22 attachment tubes immovably secured between the end posts of
23 the side frames. The vertical side frames are interconnected
24 together in spaced, parallel relationship by a plurality of

1 lower connecting cross-frames secured between respective
2 vertical end posts. A plurality of horizontal shelf supports
3 extend between the side frames for supporting various sized
4 sports balls and a variety of modular sports equipment
5 support accessories are removably supported along the
6 attachment tubes without the need for fasteners. A pair of
7 flexible sports equipment carriers are removably mounted
8 within a drawer frame member that extends between the
9 vertical end frames. The drawer frame member slides inwardly
10 and outwardly to permit the flexible carriers to be easily
11 removed and reinserted within the drawer frame.

12 As compared to the prior art, the sports equipment
13 organizer has many versatile features that allow the
14 organizer to be personally configured for numerous sports.
15 The system is modular in that all components work together
16 to create a total sports equipment organizer with several
17 options. The sports equipment organizer provides high
18 visibility of the stored equipment and allows access to the
19 equipment from all directions. The horizontal shelf supports
20 are quick and easy to adjust for adaptation to different
21 sporting equipment. The sports carriers are constructed of
22 a flexible material that easily adapts to hold any variety
23 of sports equipment and are removably mounted within the
24 outwardly slidable drawer frame for easy removal and

1 replacement. The flexible material is breathable to reduce
2 bacteria and mold growth within moist or wet sporting
3 equipment. The modular equipment support accessories have
4 a unique locking design feature which allows attachment
5 without fasteners and prevents the accessories from
6 disengaging upon an impact.

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1 BRIEF DESCRIPTION OF THE FIGURES

2 FIG. 1 is a perspective view showing the
3 multi-configurational sports equipment organizer constructed
4 in accordance with the present invention and utilizing a
5 variety of removably mounted equipment support accessories;

6 FIG. 2 is an exploded perspective view showing the
7 multi-configurational sports equipment organizer constructed
8 in accordance with the present invention;

9 FIG. 3 is a further perspective view showing the
10 multi-configurational sports equipment organizer of the
11 present invention illustrating the slidingly mounted drawer
12 frame mechanism;

13 FIG. 4 is a partial perspective view along lines 1-1 of
14 FIG. 1, illustrating one means of attaching the flexible
15 sports carriers within the drawer frame mechanism of the
16 instant invention;

17 FIG. 5 is a partial perspective view along lines 1-1 of
18 FIG. 1, illustrating one means of attaching the flexible
19 sports carriers within the drawer frame mechanism of the
20 instant invention;

21 FIG. 6 is a partial perspective view along lines 1-1 of
22 FIG. 1, illustrating one means of attaching the flexible
23 sports carriers within the drawer frame mechanism of the
24 instant invention;

25 FIG. 7 is a perspective view showing the construction

1 of a basket-type support accessory provided with integrally
2 formed wire hooks;

3 FIG. 8 is a perspective view showing the construction
4 of a support accessory provided with integrally formed wire
5 hooks;

6 FIG. 9 is a perspective view similar to FIG. 1 but
7 showing the sports equipment organizer supported on casters
8 for displacement thereof.

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1 DETAILED DESCRIPTION OF THE INVENTION

2 Although the invention will be described in terms of a
3 specific embodiment, it will be readily apparent to those
4 skilled in this art that various modifications,
5 rearrangements, and substitutions can be made without
6 departing from the spirit of the invention. The scope of the
7 invention is defined by the claims appended hereto.

8 Referring now to the drawings and more particularly to
9 FIGS. 1 and 2, there is shown generally a
10 multi-configurational sports equipment organizer 10
11 constructed in accordance with the present invention. The
12 equipment organizer includes at least two vertical side
13 frames 11 and 11' each having two spaced apart vertically
14 extending corner posts 12 and 12'. The side frames 11 and
15 11' are substantially identical with respect to each other
16 and are mirror images of each other. The corner posts 12 and
17 12' are interconnected at a top end by transverse horizontal
18 members 14 and 14', herein illustrated as an integrally
19 formed transverse portion of a rigid tube constituting one
20 of the vertically extending corner posts 12 and 12'. The
21 corner posts 12 and 12' are interconnected at a bottom end
22 by a transverse horizontal member 22. Also interconnecting
23 the vertically extending corner posts are a plurality of
24 transverse horizontal attachment tubes 16 through 20

1 immovably secured in a spaced relationship between the
2 rearward corner post 12 and the forward corner post 12'. The
3 attachment tubes are provided with apertures 44 integrally
4 formed therein for removably attaching equipment support
5 accessories. Each end post 12 and 12' also include an
6 adjustable foot member 13. The foot members 13 are
7 preferably threadedly secured within the lower end of the
8 corner posts to allow upward and downward adjustment thereof.
9 The adjustment of the foot members allows the sports
10 organizer to be easily stabilized on flat as well as
11 irregular surfaces.

12 The vertical side frames 11 and 11' are interconnected
13 together in spaced generally parallel relationship by at
14 least two connecting cross-bars 15, 15' secured between a
15 respective common one of the corner posts 12 and 12' of the
16 pair of vertical side frames 11 and 11'. To add strength and
17 rigidity to the assembly, a pair of gusset members,
18 illustrated as gusset plates 25 connect between the lower
19 connecting cross-bar 15 and the corner posts 12. In a most
20 preferred embodiment the side frames are interconnected by
21 three connecting cross-bars 15, 15' and 15'' for additional
22 strength and rigidity.

23 A plurality of shelf supports 24 are secured between the
24 respective horizontal attachment tubes 16, 16' and 18, 18'

1 interconnecting the upper portion of the side frames 11 and
2 11'. The shelf supports 24 may be adjustable along a
3 horizontal plane to hold and keep various sized balls or
4 other sporting goods, the adjustment maintaining the shelf
5 supports in a parallel horizontal plane. In the preferred
6 embodiment the shelf supports extending between horizontal
7 attachment tubes 16 and 16' are adjusted to support smaller
8 sporting paraphernalia such as footballs, softballs and so
9 forth while the shelf supports extending between attachment
10 tubes 18 and 18' are adjusted to support larger sporting
11 goods such as basketballs, volleyballs and the like. The
12 cross-bars 15 and shelf supports 24 are attached to the side
13 frames 11 and 11' with fasteners such as screws 42 suitable
14 for ease and rapidity of installation and removal.

15 Referring to FIGS. 2 and 3, the slidably mounted drawer
16 frame mechanism is illustrated. The rectangularly shaped
17 drawer frame 32 generally includes like constructed front and
18 back members 34, like constructed left and right side members
19 36, 36' and a divider member 38. The side, front, back and
20 divider members are preferably secured together by weldment
21 to form the drawer frame 32. The divider is positioned
22 generally at the midpoint of the back member extending to the
23 front member. It should be noted that other fastening
24 methods well known in the art suitable for attaching tubular

1 components together may also be used.

2 Horizontal attachment tubes 20 and 20' each include a
3 drawer slide track 26 and 26' secured thereto. The drawer
4 slide tracks are constructed and arranged to cooperate with
5 drawer slide rails 28 and 28' mounted to the left and right
6 side members 36 and 36' of drawer frame 32 in a manner well
7 known in the art. The slide rails are suitably secured to
8 drawer frame 32 to allow the frame to be slid outwardly for
9 easy removal and reinsertion of the flexible equipment
10 carriers 40 (FIG. 1). The drawer slide tracks 26, 26' and
11 drawer slide rails 28 and 28' each include a linear bearing
12 30 to facilitate linear translation of the drawer without
13 binding.

14 Referring to FIGS. 4-6, several means of removably
15 securing flexible equipment carriers 40 (FIG. 1) within the
16 drawer frame 32 are shown. The flexible carriers 40 each
17 include a first closable end 62 and a second closed end 64.
18 The first end 62 generally including a means for removably
19 attaching the flexible equipment carrier 40 to the drawer
20 frame in an open position. In one embodiment, the means for
21 removably securing the flexible equipment carrier within the
22 drawer frame includes a plurality of tie strings 66 (FIG. 5)
23 attached in a spaced arrangement around the perimeter of the
24 first end 62 of the flexible carrier 40. The tie strings 66

1 are constructed and arranged for tied securement around a
2 portion of the drawer frame 32. An alternative means for
3 removably attaching the flexible equipment carriers 40 to the
4 drawer frame includes flexible straps 68 (FIG 4) having a
5 suitable length to extend around a portion of the drawer
6 frame. The flexible straps 68 include a first end 70,
7 attached in a spaced arrangement around the perimeter of the
8 first end 62 of the flexible carrier 40, and a second end 72
9 which may include hook and loop, snaps or other fasteners
10 well known in the art. Yet another alternative means of
11 removably attaching the flexible equipment carriers 40 to the
12 drawer frame 32 includes a plurality of clips 74 (FIG. 6).
13 The clips 74 may be constructed of plastic or metal by
14 methods well known in the art. The clips 74 are constructed
15 and arranged to slide over a portion of the drawer frame 32
16 and a portion of the flexible equipment carrier 40 to hold
17 the equipment carrier in an open position. The flexible
18 equipment carriers 40 are preferably constructed of a
19 flexible or mesh type material. The flexible material should
20 also be constructed and arranged to allow air to flow through
21 the sporting equipment within the carriers.

22 Referring to FIGS. 7 and 8, a plurality of sports
23 equipment support accessories generally illustrated as a
24 basket 46 and fixed peg support 50 are illustrated. The

1 support accessories are constructed and arranged for
2 removable attachment to the apertures 44 in the horizontal
3 attachment tubes 16-20. These accessories are preferably
4 formed from wire rod 48 with cross-wires resistance welded
5 together at their intersections, as is well known in the art.
6 Further, all of these accessories include integrally formed
7 wire hook ends 52 which may vary in configuration depending
8 on the accessory and its interconnection with the sports
9 organizer. The construction of the wire hook ends 52 allow
10 the accessories to be attached to the attachment tube
11 apertures 44 without fasteners by merely inserting the hook
12 into the aperture and sliding the accessory downward. This
13 construction permits end user to rearrange the sports
14 equipment organizer with a plurality of equipment support
15 accessories to suit a particular need. The wire basket 46
16 may include a flexible liner 54. The flexible liner is
17 constructed and arranged for removal from the wire basket 46
18 to allow small sporting items to be transported in a group.

19 Referring to FIG. 9, the sports equipment organizer is
20 illustrated including casters 60 secured to the bottom of the
21 vertically extending posts 12 and 12' of each of the vertical
22 side frames 11 and 11'. The casters 60 permit the sports
23 organizer to be easily moved from one location to another.
24 The casters may also be provided with brakes (not shown) for

1 securing the equipment organizer in place.

2 A sports equipment organizer has been shown and
3 described. The wire and tubing construction of the sports
4 organizer 10 allows light to permeate through the entire
5 organizer making all of the organized equipment visible. The
6 construction also allows air to flow through the organizer
7 allowing moist or wet equipment to dry. The construction
8 also has the added advantage of allowing access to the sports
9 equipment from all sides.

10 All patents and publications mentioned in this
11 specification are indicative of the levels of those skilled
12 in the art to which the invention pertains. All patents and
13 publications are herein incorporated by reference to the same
14 extent as if each individual publication was specifically and
15 individually indicated to be incorporated by reference.

16 It is to be understood that while a certain form of the
17 invention is illustrated, it is not to be limited to the
18 specific form or arrangement herein described and shown. It
19 will be apparent to those skilled in the art that various
20 changes may be made without departing from the scope of the
21 invention and the invention is not to be considered limited
22 to what is shown and described in the specification.

23 One skilled in the art will readily appreciate that the
24 present invention is well adapted to carry out the objectives

1 and obtain the ends and advantages mentioned, as well as
2 those inherent therein. The embodiments, methods, procedures
3 and techniques described herein are presently representative
4 of the preferred embodiments, are intended to be exemplary
5 and are not intended as limitations on the scope. Changes
6 therein and other uses will occur to those skilled in the art
7 which are encompassed within the spirit of the invention and
8 are defined by the scope of the appended claims. Although
9 the invention has been described in connection with specific
10 preferred embodiments, it should be understood that the
11 invention as claimed should not be unduly limited to such
12 specific embodiments. Indeed, various modifications of the
13 described modes for carrying out the invention which are
14 obvious to those skilled in the art are intended to be within
15 the scope of the following claims.

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